SVC(TND, TNS)
series AC voltage stabilizer

Product overview

SVC (TND, TNS) series high-precision automatic AC voltage stabilizing power supply consists of contact type autocoupling voltage regulator, servo motor, automatic control circuit, etc. When the grid voltage is unstable or the load changes, the automatic control circuit drives the servo motor according to the change of the output voltage, adjusts the position of the carbon brush on the contact type auto coupling voltage regulator, so that the output voltage can be adjusted to the rated value. The output voltage is stable, reliable, efficient, and can work continuously for a long time. Especially in areas with large fluctuation of grid voltage or seasonal variation of grid voltage, the machine can obtain satisfactory results. Suitable for normal operation of instruments, meters, household appliances and other loads. SVC (TND, TNS) series high-precision automatic AC voltage stabilizing power supply consists of contact type auto coupling voltage regulator, servo motor, automatic control circuit, etc. When the grid voltage is unstable or the load changes, the automatic control circuit drives the servo motor according to the change of the output voltage, adjusts the position of the carbon brush on the contact type auto coupling voltage regulator, so that the output voltage can be adjusted to the rated value. The output voltage is stable, reliable, efficient, and can work continuously for a long time. Especially in areas with large fluctuation of grid voltage or seasonal variation of grid voltage, the machine can obtain satisfactory results. Suitable for normal operation of instruments, meters, household appliances and other loads.
Product complies with JB/T8749.7 standard.

Selection Guide

SVC(TND)	0.5	kVA
Product model	Rated capacity	Capacity unit
SVC (TND): single-phase AC voltage regulator SVC (TNS): three-phase AC voltage stabilizer	0.5、1 … 100kVA	kVA

Features andscopeof application

The stabilized voltage power supply has the characteristics of beautiful appearance, low selfloss, complete protection functions, etc. It can be widely used in production, scientific research, medical and health care, air conditioners, refrigerators and other household appliances. It is an AC stabilized voltage power supply with ideal performance and price.

Normal working conditions and installation conditions

- ☐ Ambient temperature: - 5~+40 ℃;
- ☐ Relative humidity: no more than 90% (at 25 ℃);
- ☐ Altitude: ≤ 2000m;
- ☐ Working environment: indoor without chemical deposit, dirt, harmful corrosive medium and flammable and explosive gas; It can work continuously.

Main technical data

See Table 1 for main technical indicators

Table 1

Project \ Number of phases	Single-phase	Three-phase
Input voltage range	160~250V	280~430V
output voltage	220V±2 5%	380±3%
Overvoltage protection value	246±4 V	246±7 V
Voltage regulating speed	<1s (when the input voltage changes 7.5V)	
Rated frequency	50Hz	
Electrical strength	Withstand 50Hz sine AC 1500V in cold state for 1min	
Load power factor	0.8	
Efficiency	More than 90%	

Note:

1. The technical indicators of each unit refer to those shown on the enclosure. Single phase 0.5~3kVAwith110V ±3% output voltage;
2. The in put voltage exceeds the above range, and special technical indicators can be specially ordered.

Output capacity curve; See Figure 1

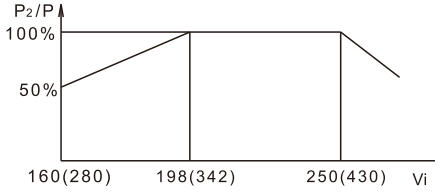


Figure 1

Figure(1)Output capacity curve

Vi: inputVoltage
P2: outputcapacity
P: Ratedoutputcapacity

Electricalschematicdiagram

☐ The electrical schematic diagram of 0.5kVA~1.5kVA high-precision full-automatic AC voltage stabilizer is shown in Figure2;

☐ See Figure3 for electrical schematic diagram above SVC-5kVA;

☐ See Figure4 for the electrical schematic diagram of single-phase voltage regulator;

☐ The electrical schematic diagram of three-phase voltage regulator is shown in Figure5.

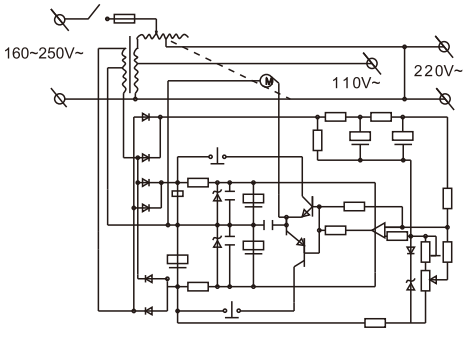


Figure 2

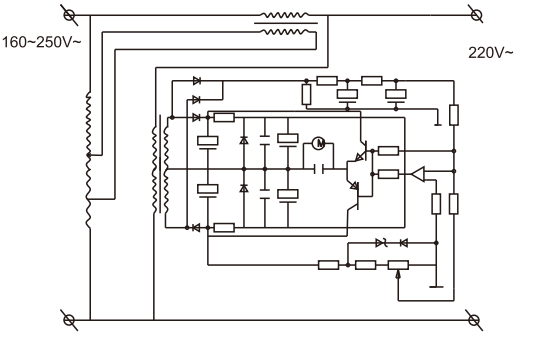


Figure 3

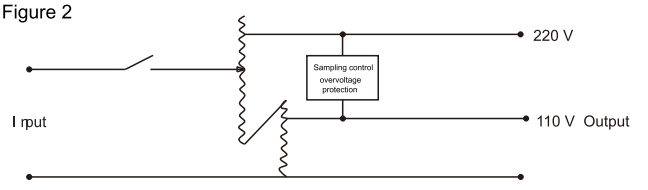


Figure 4

VOLTAGE REGULATOR

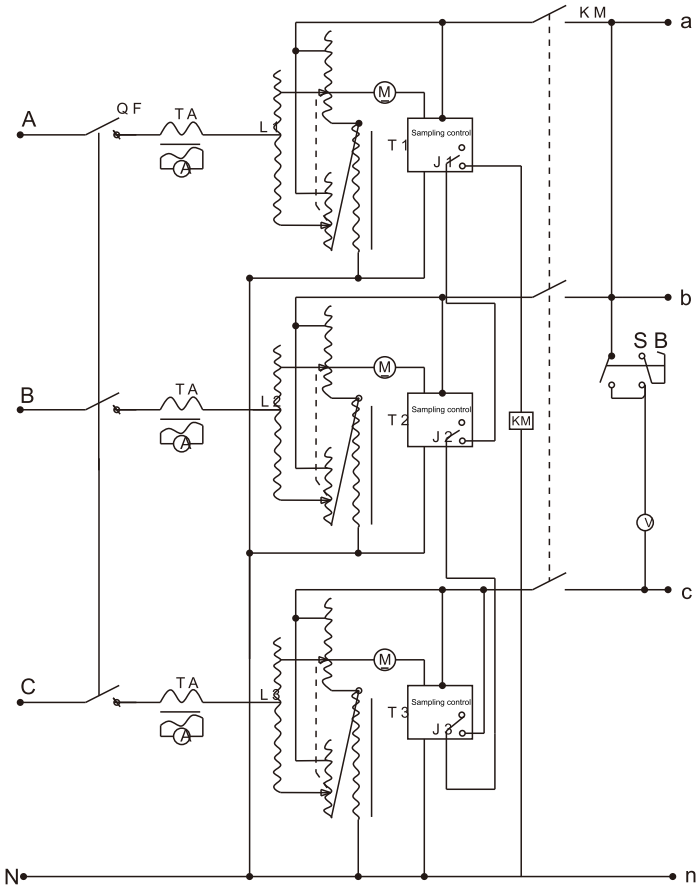
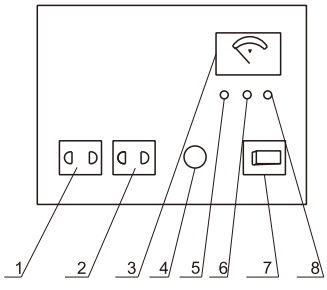
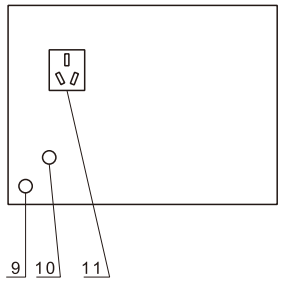


Figure 5

Outline drawing

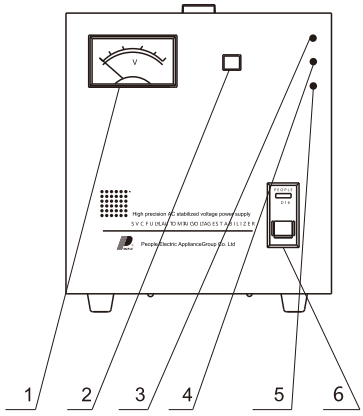
SVC-0.5kVA~1.5kVA high-precision full-automatic AC voltage regulator:



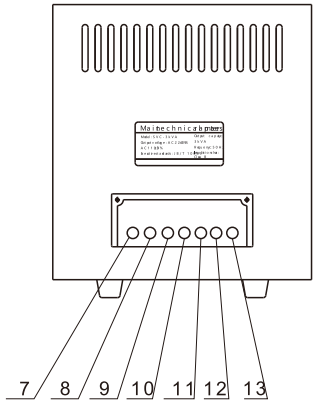


1. Output two socket (2 2 0 V)
2. Output two socket (1 1 0 V)
3. Voltmeter (output voltage)
4. Fuse holder (FU)
5. Operation indicator light (green)
6. Undervoltage indicator (yellow)
7. power switch
8. Overvoltage indicator (red)
9. Grounding
1 0. Inputpower cord
1 1. Outputthree socket（220V)

S VC-2kVA~3kVA high-precision full-automatic AC voltage regulator:



1. Voltmeter
2. Voltage measurement button
3. Overvoltage indicator (red)
4. Working indicator (green)
5. Undervoltage indicator (yellow)
6. Power switch
7. Grounding
8. Input phase line
9. Input zero line
10. Output phase line } 110V
11. Output zero line }
12. Output phase line } 220V
13. Output zero line }



Note: For the wiring mode, single-phase SVC-2kVA~5kVA, unscrew the wiring screws fixed at the back of the backplane, use the section area of the bare wire part of the conductor to meet the needs of conducting current during load, press the stripped bare wire part at the top of the conductor fully according to the wiring diagram, and tighten it. it is strictly prohibited to loosen the screws in the front row of the wiring board to fix the internal conductors and use the conductors that do not meet the actual capacity.

VOLTAGE REGULATOR

See Figure 6 and Table 3 for product dimensions

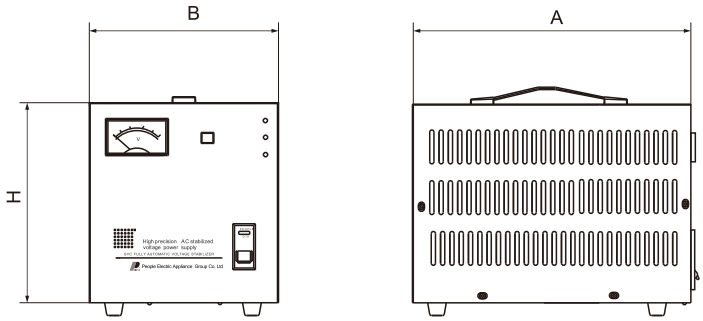


Figure 6

Table 3

Model	Capacity	Overall dimension AxBxH (cm)
S VC(single-phase)	0.5kVA	19x18x15
	1kVA	22x22x16
	1.5kVA	22x22x16
	2kVA	27x24x21
	3kVA	24x30x23
	5kVA	22x36x28
	7kVA	25x41x36
	10kVA(Horizontal)	25x41x36
	10kVA(Vertical)	32x35x57
	15kVA	35x39x66
	20kVA	35x39x66
	30kVA	50x50x96
SVC(three-phase)	1.5kVA	49x35x17
	3kVA	49x35x17
	4.5kVA	49x35x17
	6kVA	28x33x68
	9kVA	33x33x76
	15kVA	37x43x82
	20kVA	37x43x82
	30kVA	41x46x95
	50kVA	56x60x130
	60kVA	50x60x130
	100kVA	66x50x129